CLAIMS

What is claimed is:

1. A method comprising:

receiving a message indicating that a destination port of a multiservice network is congested; and

reducing incoming traffic to the congested port to a guaranteed bandwidth of traffic until the destination port is uncongested.

2. The method of claim 1 wherein the network is selected from the group consisting of:

Asynchronous Transfer Mode (ATM) network, Frame Relay (FR) network, voice network, Circuit Emulation Service (CES) network, and Internet Protocol (IP) network.

3. The method of claim 2 further comprising

scheduling a grant for a virtual output queue associated with the congested destination port.

4. The method of claim 3 wherein scheduling a grant further comprises

determining whether a theoretical departure time for at least one virtual output queue is less than a current time.

5. The method of claim 4 wherein scheduling a grant further comprises scheduling a grant for the virtual output queue having the smallest theoretical departure time.

6. The method of claim 4, wherein scheduling a grant further comprises scheduling a grant to one of the virtual output queues associated with the congested destination port using either a round robin scheduling method or a priority based scheduling method.

7. An apparatus comprising:

means for receiving a message indicating that a destination port of a multiservice is congested; and

means for reducing incoming traffic to the congested port to a guaranteed bandwidth of traffic until the destination port is uncongested.

8. The apparatus of claim 7 wherein the network is selected from the group consisting of:

Asynchronous Transfer Mode (ATM) network, Frame Relay (FR) network, voice network, Circuit Emulation Service (CES) network, and Internet Protocol (IP) network.

9. The apparatus of claim 8 further comprising

means for scheduling a grant for a virtual output queue.

10. The apparatus of claim 9 wherein said means for scheduling a grant further comprises

means for determining whether a theoretical departure time for at least one virtual output queue is less than a current time.

11. The apparatus of claim 10 wherein said means for scheduling a grant further comprises

means for scheduling a grant for the virtual output queue having the smallest theoretical departure time.

12. The apparatus of claim 10, wherein said means for scheduling a grant further comprises

means for scheduling a grant to a virtual output queue using either a round robin scheduling method or a priority based scheduling method.

13. A computer readable medium having instructions which, when executed by a processing system, cause the system to:

receive control cells indicating that a destination port of a multiservice network is congested; and

reduce incoming traffic to the congested port to a guaranteed bandwidth of traffic until the destination port is uncongested.

14. The medium of claim 13 wherein the network is selected from the group consisting of:

Asynchronous Transfer Mode (ATM) network, Frame Relay (FR) network, voice network, Circuit Emulation Service (CES) network, and Internet Protocol (IP) network.

15. The medium of claim 14 wherein the executed instructions further cause the system to schedule a grant for a virtual output queue.

16. The medium of claim 15 wherein the executed instructions further cause the system to schedule a grant further comprises

determining whether a theoretical departure time for at least one virtual output queue is less than a current time.

17. The medium of claim 16 wherein the executed instructions further cause the system to schedule a grant further comprises

scheduling a grant for the virtual output queue having the smallest theoretical departure time.

18. The medium of claim 16, wherein the executed instructions further cause the system to schedule a grant further comprises

schedule a grant to a virtual output queue using either a round robin scheduling method or a priority based scheduling method.

19. An apparatus comprising:

a receiver to receive a message indicating that a destination port of a multiservice network is congested; and

a traffic manager to reduce incoming traffic to the congested port to a guaranteed bandwidth of traffic until the destination port is uncongested.

20. The apparatus of claim 19 wherein the network is selected from the group consisting of:

Asynchronous Transfer Mode (ATM) network, Frame Relay (FR) network, voice network, Circuit Emulation Service (CES) network, and Internet Protocol (IP) network.

21. The apparatus of claim 20 further comprising a scheduler to schedule a grant for a virtual output queue associated with the congested destination port.

22. The apparatus of claim 21 further comprising a calculator to determine whether a theoretical departure time for at least one virtual output queue is less than a current time.